

AMENDMENTS TO THE CLAIMS

1. **(Currently Amended)** A bipolar electrostatic chuck comprising a first electrode and a second electrode in an interior of an insulating material, said first electrode and second electrode being applied voltages that are different from each other, generates at least an attracting performance by a gradient force, and attracts a sample by allowing a surface of the insulating material to function as a sample attracting plane, ~~characterized in that wherein[[:]]~~

the insulating material comprises an upper insulating layer, the first electrode, an inter-electrode insulating layer, the second electrode, and a lower insulating layer which are laminated in the order of distance from the sample attracting plane[[:]], and

when the insulating material is viewed from a side cross-sectional view, the first electrode has a plurality of gaps, and the second electrode has a plurality of areas that are not overlapped with the first electrode.

2-3. (Cancelled)

4. **(Currently Amended)** The bipolar electrostatic chuck according to claim 1, wherein[[:]]

the first electrode is formed in a comb-like configuration[[:]],

the second electrode is formed in a comb-like configuration[[:]],

the comb-like configuration of the first and second electrodes are alternately arranged[[:]], and

the second electrode is not overlapped with the first electrode in a normal line direction of the sample attracting plane.

5. (Cancelled)

6. (Currently Amended) The bipolar electrostatic chuck according to claim 1, wherein[[:]]

the first electrode is formed in a comb-like configuration[[:]],

the second electrode is formed in a plane having a given planar area[[:]], and

a part of the second electrode is overlapped with the first electrode in a normal line direction of the sample attracting plane.

7. (Currently Amended) The bipolar electrostatic chuck according to claim 1, wherein[[:]]

the first electrode is formed in a lattice-like configuration[[:]],

the second electrode is formed in a plane having a given planar area[[:]], and

a part of the second electrode is overlapped with the first electrode in a normal line direction of the sample attracting plane.

8. (Currently Amended) The bipolar electrostatic chuck according to claim 1, wherein[[:]]

the first electrode is formed in a mesh configuration having a plurality of openings each within a given area[[:]],

the second electrode is formed in a plane having a given planar area[[:]], and
a part of the second electrode is overlapped with the first electrode in a normal line direction of the sample attracting plane.

9. (Cancelled)

10. (Currently Amended) The bipolar electrostatic chuck according to claim 1, wherein[[:]]

the first electrode centers on a circular portion having a given circular area, has a plurality of first annular portion that are concentrically disposed at a given interval, and has a first connection portion that connects the circular portion and the first annular portions to each other[:], and

the second electrode has a plurality of second annular portions having a width smaller than the interval which are concentrically disposed, is formed to have a second connection portion that connects the second annular portions to each other, the first annular portions and the second annular portions being alternately disposed in a normal line direction of the sample attracting plane.

11. (Currently Amended) The bipolar electrostatic chuck according to claim 1, wherein[:]

the first electrode centers on a circular portion having a given circular area, has a plurality of first annular portions that are concentrically disposed at a given interval, and has a first connection portion that connects the circular portion and the first annular portions to each other[;], and

the second electrode has a plurality of second annular portions having a width same as the interval which are concentrically disposed, is formed to have a second connection portion that connects the second annular portions to each other, the first annular portions and the second annular portions being alternately disposed in a normal line direction of the sample attracting plane.

12. (Cancelled)

13. (Previously Present) The bipolar electrostatic chuck according to claim 1, wherein a distance between the first electrode and the second electrode is equal to or more than 1 μm and equal to or less than 1000 μm .

14. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein[[:]]

the first electrode is formed in a comb-like configuration[;], and
in the case where a electrode width (z) of the first electrode and an inter-electrode gap (z) are made equal to each other, (z) is in a range of 0.15 to 0.5 mm.

15. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein the inter-electrode insulating layer is formed of a resin layer made of one or more resins selected from the group consisting of polyimide, polyamide-imide, polyester, polyethylene terephthalate, epoxy, and acryl.

16. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein the resin layer is formed of one or more resin films.

17. (Currently Amended) The bipolar electrostatic chuck according to claim 1, wherein the inter-electrode insulating layer is formed of a ceramic layer made of one or more elements selected from the group consisting of aluminum oxide, aluminum nitride, silicon carbide, silicon nitride, zirconia, and titania.

18. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein the inter-electrode insulating layer is formed of one or two elements selected from the group consisting of silicon and silicon dioxide.

19. (Currently Amended) The bipolar electrostatic chuck according to claim 1, wherein[[::]]

an electrically conductive layer is further formed on the surface of the insulating material[[;]], and

the surface of the electrically conductive layer serves as the sample attracting plane.

20. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein a sectional configuration of a part or all of the first electrode taken along the depth direction of the sample attracting plane comprises a configuration selected from the group consisting of a rectangle, a square, a circle, and a triangle.

21. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein a sectional configuration of a part or all of the second electrode taken along the depth direction of the sample attracting plane comprises a configuration selected from the group consisting of a rectangle, a square, a circle, and a triangle.

22. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein the inter-electrode insulating layer has a thickness of 1 to 1000 μm .

23. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein the upper insulating layer has a thickness of 10 to 200 μm .

24. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein the first electrode is formed in the comb-like configuration, and the inter-electrode gap is in a range of 0.15 to 0.5 mm.

25. (Previously Presented) The bipolar electrostatic chuck according to claim 1, wherein the first electrode is formed in the mesh configuration, and a size of each of the openings is in a range of 0.1 to 3.0 mm.

26. (New) A bipolar electrostatic chuck which comprises a first electrode and a second electrode in an interior of an insulating material, the first electrode and the second electrode being applied voltages that are different in polarity or one electrode being grounded while the other one is set to a positive electrode or a negative electrode, so as to generate at least an attracting performance by a gradient force and attract a sample by allowing a surface of the insulating material to function as a sample attracting plane, wherein

the insulating material comprises an upper insulating layer, the first electrode, an inter-electrode insulating layer, the second electrode, and a lower insulating layer which are laminated in the order of distance from the sample attracting plane, and

when the insulating material is viewed from a side cross-sectional view, the first electrode has a plurality of gaps, and the second electrode has a plurality of areas that are not overlapped with the first electrode.

27. (New) A bipolar electrostatic chuck which comprises a first electrode and a second electrode in an interior of an insulating material, the first electrode and the second electrode being applied voltages between said first electrode and second electrode, so as to generate at least an attracting performance by a gradient force and attract a sample by allowing a surface of the insulating material to function as a sample attracting plane, wherein

the insulating material includes an upper insulating layer, the first electrode, an inter-electrode insulating layer, the second electrode, and a lower insulating layer which are laminated in the order of distance from the sample attracting plane, and

when the insulating material is viewed from a side cross-sectional view, the first electrode has a plurality of gaps, and the second electrode has a plurality of areas that are not overlapped with the first electrode.

28. (New) The bipolar electrostatic chuck according to claim 1, 26 or 27, wherein said bipolar electrostatic chuck is capable of attracting an insulating substrate.